

PMC-EF2a

(20102)

**U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION**



RECIPIENT: Naknek Electric Association

STATE: AK

PROJECT TITLE : Southwest Alaska Regional Geothermal Energy Project - Implementation of a Demonstration EGS Project in Naknek, Alaska

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000092	DE-EE0002956	GFO-09-423-001	0

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

C12 Siting, construction, and operation of energy system prototypes including, but not limited to, wind resource, hydropower, geothermal, fossil fuel, biomass, and solar energy pilot projects.

Rational for determination:

The Southwest Alaska Regional Geothermal Energy Project of Naknek Electric Association, Inc. (NEA) would demonstrate the potential geothermal energy resource. American Recovery and Reinvestment Act funding is specifically for a deep drilling program designed to confirm and evaluate commercial production of geothermal fluids by conventional means. The presence of a geothermal resource in the area has not yet been confirmed by drilling the first exploratory well (G1), therefore drilling the third well (G3) would be designed to investigate conditions at various depth intervals, assuming G1 and G2 wells are stimulated. The project may require road construction to connect the NEA allotment and the well site to the existing Lake Camp Road, assuming G3 is not drilled from the proposed G2 pad. A 300 ft x 300 ft gravel drill pad may be constructed to support drilling operations for G-3, assuming G3 is not drilled from the G2 pad.

In 2009, an exploration well (G1) was conducted to characterize the geophysical anomaly that could be associated with a geothermal reservoir. This included geophysical (seismic and resistivity) surveys and thermo-gradient exploratory drilling. An allotment area of approximately 120 acres was identified and selected by NEA for the initial drilling project. A second exploratory well (G2) is planned to be drilled spring 2010 (see connected action for G2 DE-EE0002956).

The proposed three-year green field exploration program would consist of drilling and evaluating up to six wells for the production of geothermal fluids. All geothermal exploration wells would be drilled using the same design and operational procedures outlined, located and engineered based on the results of G1, and G2. Drilling equipment and operational services would be provided by geothermal exploration consultants and drilling contractors using best management practices, methods, equipment and technologies. The project would be divided into nine tasks:

Phase 1: Geothermal Resource Evaluation - Naknek G-1 and G-2

Task 1.0 Geothermal Resource Evaluation: Conduct an evaluation of the previous drilling (G-1 and G-2) to determine if either well is a candidate for stimulation (low permeability). Decision Point –Determine if the incorporation of EGS technologies is required to create a productive geothermal resource. If EGS technologies are required proceed to Phase 2. If EGS technologies are not be required, then the project would not proceed forward and a final report would be submitted.

Phase 2: Plan for and Conduct EGS Technologies (Stimulation)

Task 2.0 Stimulation Plan: Establish a seismic monitoring array and prepare a stimulation plan.

Task 3.0 Conduct Stimulation: Conduct a stimulation as prescribed in the stimulation plan.

Phase 3: Evaluate Stimulation by Drilling G3

Task 4.0 Continue Contracts for Equipment, Materials and Services Related to Drilling G3.

Task 5.0 Prepare Drilling Pad for Drilling Well G3

Task 6.0 Skid Drilling Equipment to Well G3 Location
 Task 7.0 Drill Well G3 from 700 Feet to Total Depth (TD)
 Task 8.0 Install Permanent Wellhead Equipment on Well G3
 Task 9.0 Demobilization and Clean-Up

DOE must analyze the construction and installation of up to six geothermal wells (this determination includes drilling G2 (GFO-09-423), a connection action) with associated roads in funding the equipment for the Southwest Alaska regional Geothermal Energy Project for NEA according to the National Environmental Policy Act (NEPA). Existing and potential impacts are unknown at this time. Per the DOE NEPA implementing regulations (Appendix C to Subpart D to 10 CFR Part 1021 - C12, as noted above), preparation of an Environmental Assessment is required prior to allowing federal funds for this proposed project.

Condition: NEA is restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternative prior to DOE providing either a NEPA clearance or a final NEPA decision regarding the project.

NEPA PROVISION

DOE has not made a NEPA determination for this award, and funding for this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

NEA is restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternative prior to DOE providing either a NEPA clearance or a final NEPA decision regarding the project.

This restriction does not preclude you from:

NEA is authorized to initiate the preparation of an EA by a third-party contractor, consistent with NEPA implementing regulations. DOE, NEA, and third-party contractor have entered into a Memorandum of Agreement (MOA) defining the scope of services to be completed by the third-party contractor on behalf of DOE.

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

NEPA Compliance Officer

Date: _____

3/10/10

FIELD OFFICE MANAGER DETERMINATION

☒ Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

- ☐ Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- ☒ Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____

Field Office Manager

Date: _____

3/12/10